

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☐ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☐ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/005,551 | 11/08/2001 | Santanu Dutta | US018181 | 8019 |

7590 08/31/2004

Corporate Patent Counsel
Philips North America Corporation
580 White Plains Road
Tarrytown, NY 10591

EXAMINER

MALZAHN, DAVID H

ART UNIT

PAPER NUMBER

2124

DATE MAILED: 08/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

RECEIVED

SEP 08 2004

Technology Center 2100

Office Action Summary

Application No.

10/005,551

Applicant(s)

DUTTA ET AL.

Examiner

David H. Malzahn

Art Unit

2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 November 2001 and 20 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 19 December 2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Daniels et al (Daniels).

Daniels discloses both an apparatus and a method for adding an N bit operand and an M bit operand by adding respective least-significant bit sets of the two operands to produce a least-significant bits partial sum and a carry-out followed by outputting a most-significant bits sum by passing out the most-significant bits of the N bit operand or an offset of the most-significant bits of the N bit operand in responsive to the most-significant bit of the set of least-significant bits of the M bit operand and the carry-out, note the abstract. Daniels increment/decrement network in conjunction with the temporary register functions as multiplexer, note the last line of the abstract.

Claim Rejections - 35 USC § 112

3. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 2124

Claim 1 is mis-descriptive because N must to greater than M if the multiplexer outputs a most-significant bit partial sum and because the selection data is a function of the most-significant bit of the set of least-significant bits of the second, not first, binary operand, note Equ. B. Also, claim 1 is incomplete because the necessary 2's complement format of the operands to be added fails to be recited. Claims 18 and 19 contain deficiencies similar to claim 1. In claim 3 the phrase "the N-M bit most-significant bits partial sum" lacks clear antecedent basis. Claims 11 and 12 are inconsistent with claim 1 relative to the selection data. Claims 14 and 15 are inconsistent with claim 1 because claim 1 requires signed binary numbers. Claims 16 and 17 are inconsistent with claim 1 because claim 1 is limited to an adder circuit. Claim 20 is incomplete because the necessary 2's complement format of the operands fails to be recited. Also in claim 20, lines 5-8 are inconsistent with lines 3-4 because the adder's (N-M)th bit internal carry bit is the most significant bit of the N-M+1 partial sum. Finally in claim 20 the body of the claim is inconsistent with the preamble because the body recites structure whereas the preamble calls for a method.

Allowable Subject Matter

4. Claim 20 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Preliminary Amendments

5. Applicants' preliminary amendments of 20 February 2002 and 05 March 2002 appear to be identical. Please clarify.

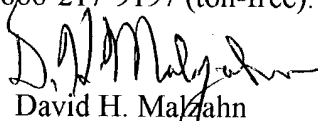
Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David H. Malzahn whose telephone number is (703) 305-9762. The examiner can normally be reached on M-Th from 7:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki, can be reached on 703-305-9662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David H. Malzahn
Primary Examiner
Art Unit 2124

| | | | |
|-----------------------------------|---------------------------------------|--|-------------|
| Notice of References Cited | Application/Control No. 10/005,551 | Applicant(s)/Patent Under Reexamination DUTTA ET AL. | |
| | Examiner David H. Malzahn | Art Unit 2124 | Page 1 of 1 |

U.S. PATENT DOCUMENTS

| * | | Document Number Country Code-Number-Kind Code | Date MM-YYYY | Name | Classification |
|---|---|--|-----------------|------------------|----------------|
| | A | US-5,418,736 A | 05-1995 | Widigen et al. | 708/706 |
| | B | US-6,065,034 A | 05-2000 | Mahurin, Eric W. | 708/706 |
| | C | US-6,260,055 B1 | 07-2001 | Sugeno et al. | 708/518 |
| | D | US- | | | |
| | E | US- | | | |
| | F | US- | | | |
| | G | US- | | | |
| | H | US- | | | |
| | I | US- | | | |
| | J | US- | | | |
| | K | US- | | | |
| | L | US- | | | |
| | M | US- | | | |

FOREIGN PATENT DOCUMENTS

| * | | Document Number Country Code-Number-Kind Code | Date MM-YYYY | Country | Name | Classification |
|---|---|--|-----------------|---------|------|----------------|
| | N | | | | | |
| | O | | | | | |
| | P | | | | | |
| | Q | | | | | |
| | R | | | | | |
| | S | | | | | |
| | T | | | | | |

NON-PATENT DOCUMENTS

| * | | Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages) |
|---|---|---|
| | U | |
| | V | |
| | W | |
| | X | |

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

| | |
|------------------------|----------------|
| Application Number | 10/005551 |
| Filing Date | 11/08/2001 |
| First Named Inventor | DUTTA, Santanu |
| Art Unit | Unknown |
| Examiner Name | Unknown |
| Attorney Docket Number | US01 8181 |

U.S. PATENT DOCUMENTS

| Examiner Initials* | Cite No. ¹ | Document Number No.-Kind Code ² (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns Lines, Where Relevant Passages or Relevant Figures Appear |
|--------------------|-----------------------|---|-----------------------------|---|--|
| | | US 5 504 698 | 04-02-1996 | SU, YI-FENG | |
| | | US 4 203 157 | 05-13-1980 | WILDER, WM BRYANT JR. et al. | |
| | | US 5 504 698 | 04-02-1996 | SU Daniels | |
| | | US- | | | |
| | | US- | | | |
| | | US- | | | |

RECEIVED

DEC 29 2003

Technology Center 2100

FOREIGN PATENT DOCUMENTS

| Examiner Initials* | Cite No. ¹ | Document Number (ctry ³ -no.-kind ² , if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of cited document | Pages, Columns Lines, Where Relevant Passages or Relevant Figures Appear | T ⁴ |
|--------------------|-----------------------|---|-----------------------------|---|--|----------------|
| | | EP 0 955 576 | 11-10-1999 | SAVO, PIERANDREA | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

NON-PATENT LITERATURE DOCUMENTS

| Examiner Initials* | Cite No. ¹ | Include name of the author (in capital letters), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ⁴ |
|--------------------|-----------------------|---|----------------|
| | | | |
| | | | |
| | | | |
| | | | |

| | | | |
|--------------------|---------------|-----------------|---------|
| Examiner Signature | D. H. Malzahn | Date Considered | 8/25/04 |
|--------------------|---------------|-----------------|---------|

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.